Refine Search

Search Results -

Term	Documents
SENT	266790
SENTS	82
BASED	1213905
BASEDS	3
ROUT$	0
ROUT	1449
ROUTA	9
ROUTABILITY	487
ROUTABILITY-DRIVE	1
ROUTABILITY-DRIVEN	1
ROUTABILITY-THAT	4
(L1 AND ((ROUT$ OR FORWARD$ OR SENT OR SEND$) WITH (EMAIL$ OR E-MAIL$) WITH BASED WITH COUNTRY$)).USPT.	0

There are more results than shown above. Click here to view the entire set.

Database:
US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

Search:
```
L1 and ((rout$ or forward$ or sent or
send$) with (email$ or e-mail$) with
based with sender$)
```

Refine Search

Recall Text Clear Interrupt

Search History

DATE: Thursday, February 03, 2005 Printable Copy Create Case

Set Name side by	Query	Hit Count	Set Name

h e b b cg b e e ch

side		result set	
DB=USPT; PLUR=YES; OP=ADJ			
L6	L1 and ((rout$ or forward$ or sent or send$) with (email$ or e-mail$) with based with country$)	0	L6
L5	L1 and ((rout$ or forward$ or sent or send$) with (email$ or e-mail$) with based with language$)	1	L5
L4	L3	10	L4
L3	L1 and ((rout$ or forward$ or sent or send$) with (email$ or e-mail$) with based with characteristic$)	10	L3
L2	L1 and ((rout$ or forward$ or sent or send$) with (email$ or e-mail$) with based)	228	L2
L1	709/$.ccls.	17161	L1

END OF SEARCH HISTORY

h e b b cg b e e ch

2/3/05

Previous Doc Next Doc Go to Doc#
First Hit Fwd Refs

Generate Collection

L3: Entry 3 of 10 File: USPT Oct 1, 2002

DOCUMENT-IDENTIFIER: US 6460050 B1
** See image for Certificate of Correction **
TITLE: Distributed content identification system

Brief Summary Text (19):
In a further aspect, the invention comprises a method for identifying a characteristic of a data file. The method comprises the steps of: generating a digital identifier for the data file and forwarding the identifier to a processing system; determining whether the forwarded identifier matches a characteristic of other identifiers; and processing the e-mail based on said step of determination.

Current US Cross Reference Classification (2):
709/203

Current US Cross Reference Classification (3):
709/206

Previous Doc Next Doc Go to Doc#

h e b b g e e e f e e g

US006460050B1

(12) **United States Patent**
Pace et al.

(10) **Patent No.: US 6,460,050 B1**
(45) **Date of Patent: Oct. 1, 2002**

(54) **DISTRIBUTED CONTENT IDENTIFICATION SYSTEM**

(76) Inventors: **Mark Raymond Pace**, 42 15th Ave., San Mateo, CA (US) 94402; **Brooks Cash Talley**, 40 15th Ave., San Mateo, CA (US) 94402

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/469,567**

(22) Filed: **Dec. 22, 1999**

(51) **Int. Cl.**[7] **G06F 17/00**; G06F 15/16

(52) **U.S. Cl.** **707/104.1**; 707/10; 709/203; 709/206

(58) **Field of Search** 707/9, 6, 104, 707/7, 10, 104.1; 709/201, 202, 204, 225, 203, 206

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,465,353	A *	11/1995	Hull et al.	707/5
5,515,513	A *	5/1996	Metzger et al.	709/249
5,619,648	A *	4/1997	Canale et al.	709/206
5,884,033	A *	3/1999	Duvall et al.	709/206
5,999,932	A *	12/1999	Paul	707/10
6,052,709	A *	4/2000	Paul	709/202
6,094,487	A *	7/2000	Butler et al.	380/270
6,144,934	A *	11/2000	Stockwell et al.	704/1
6,167,457	A *	12/2000	Eidson et al.	709/328
6,178,417	B1 *	1/2001	Syeda-Mahmood	707/3
6,189,026	B1 *	2/2001	Birrell et al.	709/206
6,195,698	B1 *	2/2001	Lillibridge et al.	709/225
6,199,081	B1 *	3/2001	Meyerzon et al.	707/513
6,199,102	B1 *	3/2001	Cobb	709/206
6,249,805	B1 *	6/2001	Fleming, III	709/206
6,310,966	B1 *	10/2001	Dulude et al.	382/115
6,321,267	B1 *	11/2001	Donaldson	709/229
6,330,590	B1	12/2001	Cotten	

OTHER PUBLICATIONS

Gary Boone "Concept features in Re:Agent, an intelligent email agent", Autonomous Agents 1998, pp. 141–148.*
Robert J. Hall "How to avoid unwanted email", ACM 1998, pp. 88–95.*
Cranor et al. "Spam!", ACM 1998, pp. 74–83.*
Chang et al "Knowledge–based message management system", ACM 1987, pp. 213–236.*
Ding et al "Centralized content–based web filtering and blocking: how far can it go?", IEEE 1999, pp. 115–119.*
Distributed Checksum Clearinghouse, various such pages from www.rhyolite.com/anti–spam/dcc, Dec. 7, 2001.
Vipul's Razor, version such pages from razor.sourceforge.net printed Dec. 19, 2001.

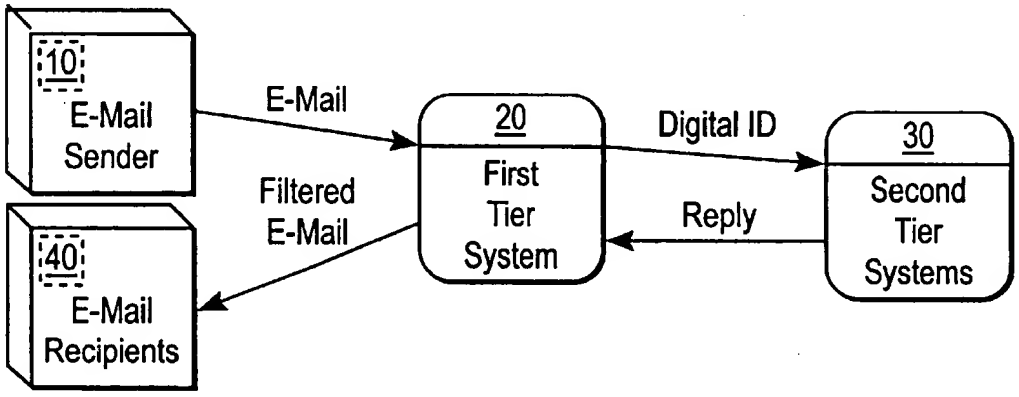
* cited by examiner

Primary Examiner—Safet Metjahic
Assistant Examiner—Uyen Le
(74) *Attorney, Agent, or Firm*—Vierra Magen Marcus Harmon & DeNiro LLP

(57) **ABSTRACT**

A file content classification system includes a digital ID generator and an ID appearance database coupled to receive IDs from the ID generator. The system further includes a characteristic comparison routine identifying the file as having a characteristic based on ID appearance in the appearance database. In a further aspect, a method for identifying a characteristic of a data file comprises the steps of: generating a digital identifier for the data file and forwarding the identifier to a processing system; determining whether the forwarded identifier matches a characteristic of other identifiers; and processing the data file based on said step of determination.

25 Claims, 2 Drawing Sheets



Freeform Search

Database: US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

Term: L10 and L2

Display: 10 **Documents in Display Format:** KWIC **Starting with Number** 1

Generate: ○ **Hit List** ◉ **Hit Count** ○ **Side by Side** ○ **Image**

Search Clear Interrupt

Search History

DATE: Thursday, February 03, 2005 Printable Copy Create Case

Mdoslovsh

Set Name side by side	Query	Hit Count	Set Name result set
	DB=USPT; PLUR=YES; OP=ADJ		
L11	L10 and L2	25	L11
L10	(plurality with (e-mail or email) with server$)	163	L10
L9	L1 and (plurality adj3 e-mail adj1 server$)	4	L9
L8	L1 and ((web adj1 server$) and (plurality adj3 e-mail adj1 server$))	0	L8
L7	L1 and ((web adj1 server$) and (e-mail adj1 server$))	134	L7
L6	L1 and ((rout$ or forward$ or sent or send$) with (email$ or e-mail$) with based with country$)	0	L6
L5	L1 and ((rout$ or forward$ or sent or send$) with (email$ or e-mail$) with based with language$)	1	L5
L4	L3	10	L4
L3	L1 and ((rout$ or forward$ or sent or send$) with (email$ or e-mail$) with based with characteristic$)	10	L3
L2	L1 and ((rout$ or forward$ or sent or send$) with (email$ or e-mail$) with based)	228	L2
L1	709/$.ccls.	17161	L1

h e b b g e e e e f ff e ch

END OF SEARCH HISTORY

h e b b g e e e e f ff e ch

Previous Doc Next Doc Go to Doc#
First Hit Fwd Refs

Generate Collection

L11: Entry 5 of 25 File: USPT May 4, 2004

DOCUMENT-IDENTIFIER: US 6732156 B2
TITLE: System for routing electronic mails

Detailed Description Text (9):
Processing center 100 also contains a router 116. This router selects the most qualified and available support person to respond to a particular e-mail based on one or more algorithms (or scripts). Various factors in a routing strategy will be described below.

Current US Original Classification (1):
709/206

Current US Cross Reference Classification (1):
709/207

CLAIMS:

1. A system for routing an electronic mail (e-mail), from an incoming queue, to one of a plurality of support persons in a processing center, each of said support persons having a specific skill set from a variety of possible skill sets, the system comprising: an e-mail server adapted to receive said e-mail from a sender; an information extractor for extracting information from said e-mail; a router for placing incoming emails from the server in a queue; and a database accessible to the router and storing skill sets of said support persons; wherein said router selects said one of a plurality of support persons by matching stored information about said specific skill sets with portions of extracted information from said queued e-mail and routes said queued e-mail to one of the plurality of said support persons.

3. The system of claim 2 wherein routing of e-mails to selected support persons is load-balanced based on recorded activity stored in said stat-server.

10. A method for routing electronic mails (e-mails) in a processing center having a plurality of support persons, comprising steps of: (a) receiving e-mails at an e-mail server in the processing center; (b) placing said e-mails in a queue: (c) extracting information from the e-mails; (d) matching extracted information with skill sets of support persons; (e) selecting specific support persons to receive said e-mails based on results of the matching step (c); and (f) sending said e-mails to said selected support persons.

13. The system of claim 12 wherein routing of e-mails to selected support persons is load-balanced based on recorded activity stored in said stat-server.

20. A method for routing electronic mails (e-mails) from an incoming queue in a processing center, having a plurality of support persons, comprising steps of: (a) receiving e-mails at an e-mail server in the processing center; (b) placing emails in a queue: (c) selecting specific support persons by a router to receive said e-mails in the queue; (d) monitoring time for response to said e-mails by said selected support persons against a preset time-for-response limit; and (e) sending

h e b b g e e e f e e g

an e-mail for which a response is not made in the time-for-response limit to a different support person.

21. A system for routing electronic mails (e-mails) from an incoming queue to individual ones of a plurality of support persons in a processing center, comprising: an e-mail server adapted to receive said e-mail from a sender; a router for placing received emails in a queue and routing said email; and a database accessible to the router; wherein said database stores statistical information about the activities of the processing center, including numbers of e-mails routed to each support person from the queue in the processing center, and said router adjusts numbers of e-mails sent from the queue to said support persons according to a load-balancing algorithm.

28. A method for routing electronic mails (e-mails) from an incoming queue in a processing center, having a plurality of support persons, comprising steps of: (a) receiving e-mails at an e-mail server in the processing center; (b) placing emails in a queue; (c) selecting support persons to receive said e-mails from the queue; (d) storing statistical information regarding numbers of e-mails routed to each support person; and (e) using the statistical information in a balancing algorithm to adjust the number of e-mails sent to each support person.

31. The system of claim 30 wherein routing of e-mails to selected support persons is load-balanced based on recorded activity stored in said stat-server.

38. A method for routing electronic mails (e-mails) in a processing center having a plurality of support persons, comprising steps of: (a) receiving e-mails at an e-mail server in said processing center; (b) placing the received emails in a queue; (c) routing e-mails from the queue to selected ones of said support persons; (d) tracking numbers of e-mails received and routed; and (e) notifying senders of possible delays if preset load thresholds are exceeded.

39. A system for routing an electronic mail (e-mail) from an incoming queue to one of a plurality of support persons in a processing center, the system comprising: an e-mail server adapted to receive said e-mail from a sender; a queue; a router; and a database accessible to the router and storing data regarding availability of said support persons; wherein said router queues incoming email, selects said one of said plurality of support persons by consulting the database for availability data and sends said e-mail to the selected support person.

41. The system of claim 40 wherein routing of e-mails to selected support persons is load-balanced based on recorded activity stored in said stat-server.

48. A method for routing electronic mails (e-mails) in a processing center having a plurality of support persons, comprising steps of: (a) receiving e-mails at an e-mail server in the processing center; (b) placing the received emails in a queue (c) checking a database for availability of support persons to which e-mails may be routed; and (d) selecting a specific support person to receive a specific e-mail based on results of the checking step (c); and sending said e-mail to the specific support person selected.

Previous Doc Next Doc Go to Doc#

h e b b g e e e f e e g

US006732156B2

(12) **United States Patent**
Miloslavsky

(10) **Patent No.: US 6,732,156 B2**
(45) **Date of Patent: *May 4, 2004**

(54) **SYSTEM FOR ROUTING ELECTRONIC MAILS**

(75) Inventor: **Alec Miloslavsky**, San Carlos, CA (US)

(73) Assignee: **Genesys Telecommunications Laboratories, Inc.**, Daly City, CA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **10/234,616**

(22) Filed: **Sep. 3, 2002**

(65) **Prior Publication Data**

US 2003/0018729 A1 Jan. 23, 2003

Related U.S. Application Data

(62) Division of application No. 08/998,268, filed on Dec. 24, 1997, now Pat. No. 6,128,646, which is a division of application No. 08/795,680, filed on Feb. 6, 1997, now Pat. No. 5,765,033.

(51) **Int. Cl.**[7] **G06F 15/16**
(52) **U.S. Cl.** **709/206**; 709/207
(58) **Field of Search** 709/205, 206, 709/207, 223, 226, 203, 305; 379/265

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,754,636	A *	5/1998	Bayless et al.	379/142.1
5,765,033	A	6/1998	Miloslavsky	
5,862,223	A *	1/1999	Walker et al.	705/50
5,884,032	A *	3/1999	Bateman et al.	709/204
5,958,014	A *	9/1999	Cave	709/229
6,058,435	A *	5/2000	Sassin et al.	709/331
6,128,646	A *	10/2000	Miloslavsky	709/206
6,449,646	B1 *	9/2002	Sikora et al.	709/226
6,453,341	B1 *	9/2002	Miloslavsky	709/206
6,456,619	B1 *	9/2002	Sassin et al.	370/356
6,463,148	B1 *	10/2002	Brady	379/265.01
6,473,787	B2 *	10/2002	Miloslavsky	709/206

OTHER PUBLICATIONS

U.S. patent application Ser. No. 09/559,045, Miloslavsky.

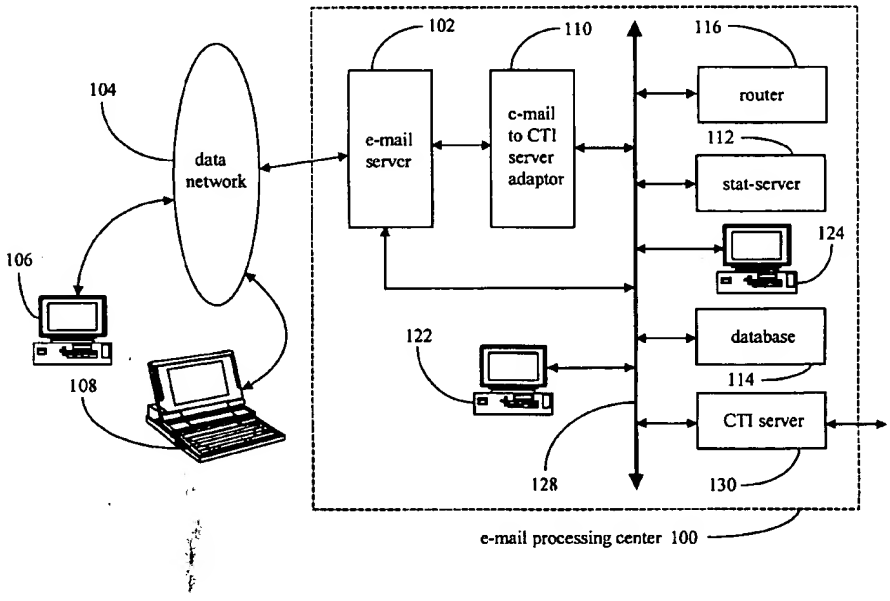
* cited by examiner

Primary Examiner—Glenton B. Burgess
Assistant Examiner—Kimberly D Flynn
(74) *Attorney, Agent, or Firm*—Donald R. Boys; Central Coast Patent Agency, Inc.

(57) **ABSTRACT**

A system for routing electronic mails to one of a plurality of support persons in a processing center is disclosed. Each person has a skill set that is suitable for responding to a certain type of e-mails. The system comprises an e-mail server for receiving the e-mail from a sender, an information extractor for extracting relevant information from the e-mail, and a router for routing the e-mail. The system contains a database for storing information related to all persons who can answer e-mails. The system also contains a server for storing the history of all activities in the system. The router can make routing decisions and perform load-balancing and alert functions based on the information stored in the database and the server.

48 Claims, 3 Drawing Sheets



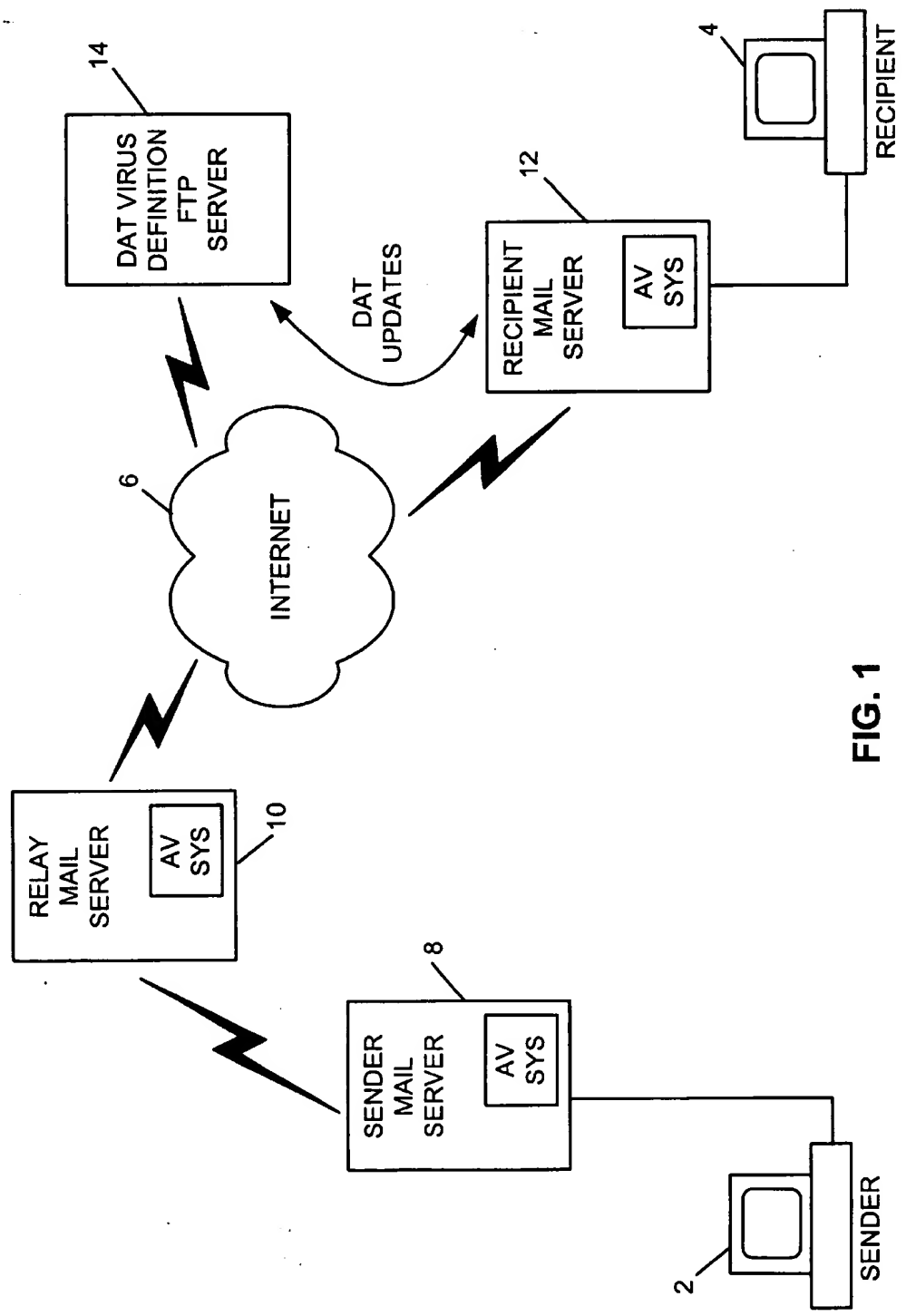

14
DAT VIRUS DEFINITION FTP SERVER
DAT UPDATES
12
RECIPIENT MAIL SERVER
AV SYS
4
RECIPIENT
6
INTERNET
RELAY MAIL SERVER
AV SYS
10
8
SENDER MAIL SERVER
AV SYS
2
SENDER

FIG. 1

US006757830B1

(12) **United States Patent**
Tarbotton et al.

(10) **Patent No.: US 6,757,830 B1**
(45) **Date of Patent: Jun. 29, 2004**

(54) **DETECTING UNWANTED PROPERTIES IN RECEIVED EMAIL MESSAGES**

(75) Inventors: **Lee Codel Lawson Tarbotton**, Leicester (GB); **Daniel Joseph Wolff**, Aylesbury (GB); **Nicholas Paul Kelly**, Milton Keynes (GB)

(73) Assignee: **Networks Associates Technology, Inc.**, Santa Clara, CA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 822 days.

(21) Appl. No.: **09/678,688**

(22) Filed: **Oct. 3, 2000**

(51) **Int. Cl.**[7] **G06F 11/30**; G06F 12/14

(52) **U.S. Cl.** **713/188**; 713/200; 713/201; 709/226

(58) **Field of Search** 709/206; 713/188, 713/200, 202, 201; 714/26, 38; 707/3

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,832,208	A *	11/1998	Chen et al.	713/201
5,889,943	A *	3/1999	Ji et al.	713/201
5,960,170	A *	9/1999	Chen et al.	714/38
6,651,249	B2 *	11/2003	Waldin et al.	717/170
6,654,787	B1 *	11/2003	Aronson et al.	709/206
2002/0198950	A1 *	12/2002	Leeds	709/206

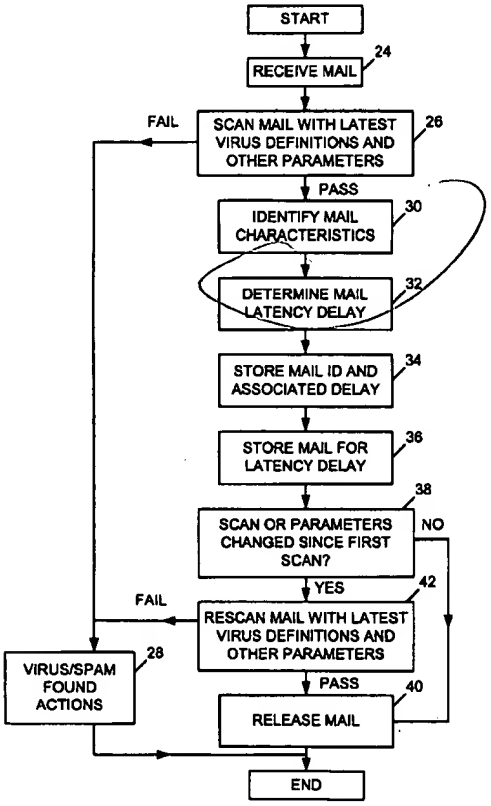
* cited by examiner

Primary Examiner—Emmanuel L. Moise
(74) *Attorney, Agent, or Firm*—Silicon Valley IP Group, PC; Kevin J. Zilka; Christopher J. Hamaty

(57) **ABSTRACT**

Received e-mail messages are subject to a minimum delay period determined in dependence upon characteristics of the e-mail message received. Prior to release of the e-mail message upon expiry of the minimum delay period a check is made that the most up-to-date anti-virus and anti-spamming tests have been applied to the e-mail message. Characteristics that may be used to determine the minimum delay period applied include sender characteristics, recipient characteristics, attachment type characteristics and message content type characteristics.

45 Claims, 8 Drawing Sheets



Previous Doc Next Doc Go to Doc#
First Hit Fwd Refs

Generate Collection

L11: Entry 3 of 25 File: USPT Jun 29, 2004

DOCUMENT-IDENTIFIER: US 6757830 B1
TITLE: Detecting unwanted properties in received email messages

Drawing Description Text (3):
FIG. 1 schematically illustrates the passage of an e-mail message from a sender to a recipient via a plurality of mail servers including anti-virus systems;

Detailed Description Text (13):
FIG. 4 schematically illustrates a sequence of rules that may be applied to received e-mail messages in order to determined the minimum delay period to be applied. These rules may be generated and applied in a manner similar to rule based processing performed for other purposes by existing known e-mail systems (e.g. rules based processing for automatic forwarding or filing of received e-mails).

Current US Cross Reference Classification (1):
709/226

Previous Doc Next Doc Go to Doc#

h e b b g e e e f e e g